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AUTHOR Salzman, Stephanie A.
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ABSTRACT

The purpose of this study was to examine the potential impact of maternal attributions and self-attributions on the academic achievement of father-absent children in comparison to commonly identified family interaction and demographic variables. Subjects included 33 male and 34 female father-absent sixth graders (mean age of 11.6 years) and their single mothers living in a metropolitan area of southeastern Idaho. The sample included Black, American Indian, and White students. On the average, fathers had been absent from the home for 34 months as a result of divorce, separation, or desertion. Thirty of the mothers had sole legal custody, while the remainder had either joint legal or physical custody of their children. Demographic variables included within the scope of the study were socioeconomic status, mother's and father's educational levels, sex of the child, and mother's occupation. Family interaction variables included the mother-father relationship, father-child contact, and mother-child contact. To assess causal attributions, each mother-child pair was asked, during a home interview, about the child's school successes and failures. Then, each mother and child completed separate attribution scales. Multivariate analyses of variance were conducted to investigate whether there were significant differences in causal attributions by gender of the child, maternal occupation, or custody arrangement. Results indicate that father-child contact, mother attributions for the child's success, and the child's attributions for success account for a significant portion of the variance in academic achievement of father-absent children. A 45-item list of references is provided. (TJH)

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Causal Attributions as Predictors of Academic Achievement in Father-Absent Children

Stephanie A. Salzman

Idaho State University

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Causal Attributions as Predictors of Academic Achievement in Father-Absent Children

Since 1960 the proportion of children living with two parents has fallen dramatically, while the proportion living with only one parent has more than doubled (Select Committee on Children, Youth, and Families, 1987). Demographers predict that at least one-third and perhaps nearly one-half of all children born during the current decade will spend some portion of their lives in a one-parent household (Bumpass, 1984; Hofferth, 1985). These changing family patterns have resulted in an increasing focus on the effects of father absence on children's academic achievement.

Although the research (Lamb, 1975, 1976; Lamb & Bronson, 1980; Lynn, 1974) has stressed the importance of fathering to children in two-parent families, the effects of father absence are still contested. There is a wide discrepancy among research findings as to the effects of father absence on children's academic achievement. There are data indicating that father absence is detrimental (Conyers, 1977; Fowler & Richards, 1979; Zakariya, 1982), that it has no effect (Carter & Walsh, 1980; Cortes & Fleming, 1968; Black, Hall, & Stevenson, 1981), and that it may even stimulate the child's academic achievement (Collins, 1981; Herzog, 1974; Jones, 1975).

The plethora of contradictory research findings has precipitated a shift in the focus of father-absence research. Rather than emphasizing differences along the crude dichotomy of father absence versus father presence, studies yielding more consistent results investigate familial

characteristics and processes which may explain differences in academic achievement among father-absent children. Such research inquires under which circumstances and in what ways father absence combines with other factors to produce identifiable effects relevant to the child's academic achievement.

In line with this model, researchers have found that demographic and familial variables mediate the effects of father absence. For example, low socioeconomic status appears to compound the negative effects of father absence (Colletta, 1983; Guidubaldi & Perry, 1984) while increased maternal educational level appears to mitigate those effects (Propst, Pardington, Ostrom, & Watkins, 1986). Achievement differences among father-absent children also appear to be linked to paternal involvement after separation (Blanchard & Biller, 1971), availability of father substitutes (Chapman, 1977), and maternal attitudes toward the absent parent (Hess & Camara, 1979).

One area that has been neglected in relation to father-absent children's achievement, however, is the possible mediating effects of affective factors. Numerous writers assert that affective characteristics influence school achievement (Bloom, 1976). One of the most fruitful of the affective factors to be studied is that of causal attributions (Heider, 1958; Kelley, 1967; Weiner, 1980). Causal attributions refer to the individual's explanations for the causes of success and failure experiences. According to attribution theory, causal attributions influence expectancies which, in turn, impact behaviors and outcomes (Beck, 1983; Weiner, 1980). Attribution theory would

suggest, therefore, that attributions expressed by children and their parents may partially explain differences in academic achievement.

The importance of causal attributions to school achievement has been demonstrated by many studies (Eccles, Goldsmith, Jacobs, & Flanagan, 1988; McGhee & Crandall, 1968; Messer, 1972; Parsons, Kaczala, & Adler, 1982) which consistently point to a relationship between internal causal attributions such as effort and ability and higher school achievement. Given that school achievement requires a degree of effort and ability, and that these behaviors are unlikely to be forthcoming if the student sees little relationship between effort and success or failure, the link between causal attributions and academic achievement seems logical.

Few studies, however, have considered causal attributions in relation to father-absent families. Hetherington (1972), with mothers and adolescent girls, Collins (1981), with high school students, and Bain, Boersma, & Chapman (1983), with elementary school children, found that father-absent subjects, when compared to father-present subjects, tended to perceive academic success as being related to external rather than internal causal attributions. On the other hand, Hainline & Feig (1978) found no significant differences in causal attributions between college women from father-absent and father-present families. All of these studies have focused on the investigation of differences in causal attributions along the unidimensional dichotomy of father absence versus father presence. To date, there has not been adequate investigation of the interrelationships between demographic

and family interaction variables and causal attributions and the manner in which those dimensions combine to influence the academic achievement of father-absent children.

Purpose of Study

The purpose of the present study was to examine the potential impact of maternal and self attributions on the academic achievement of father-absent children in comparison to commonly identified family interaction and demographic variables. Toward that end, answers to the following questions were sought:

1. What are the causal attributions for school success and failure expressed by father-absent children?

2. What are the causal attributions expressed by mothers for the school success and failure of their father-absent children?

3. How and to what extent do maternal and self causal attributions in combination with demographic and family interaction variables predict the academic achievement of father-absent children?

Method

Sample

The study sample included 67 father-absent sixth-grade children (mean age = 11.6 years, SD = 4.6 months) and their single mothers living in a metropolitan area of southeastern Idaho. Of the 33 boys in the sample, 3 were American Indian, 2 were black, and the rest were white. Of the 34 girls, 4 were Indian, 3 were black, and the rest were white. On the average, fathers had been absent from the home for 34 months (SD = 16.24 months) as the result of divorce, separation,

or desertion. Thirty of the mothers had sole legal custody while the remaining mothers had either joint legal or physical custody of their children.

Procedures

School district administrators and elementary school principals were approached for cooperation in identifying father-absent sixth-grade children living with single mothers. The mothers agreeing to participate in the study (98% of those contacted) completed a demographic questionnaire, scheduled a home interview, and authorized release of school records. Sixth-grade first and second term grades for each child were subsequently obtained from student cumulative folders.

Demographic variables of the study included family socioeconomic status, mother and father education levels, sex of child, and mother's current occupation. All demographic information was obtained from mother responses to questionnaire items. A family's level of socioeconomic status was determined by computing the mother's average monthly income including child support payments and Aid to Families with Dependent Children rent and/or food subsidies. Mother's occupation was categorized as professional; clerical, service, or sales, unskilled; and unemployed.

Family interaction variables of the study included mother-father relationship, father-child contact, and mother-child contact. The father-mother relationship was determined by mother report of the quality of her relationship with the absent father. Ratings were from 1 to 6 (1 = no relationship, 6 = excellent relationship). Father-

child contact was determined by mother and child reports of the number of hours per week spent in phone calls and/or visits between the father and his child. Each mother also reported the number of hours per week she spent in direct interaction with her child.

To assess causal attributions, each mother-child duo was asked by the researcher or a graduate assistant, in a home interview, about the child's school successes and failures. After recalling specific successful and unsuccessful school experiences, each mother and child completed separate Attribution Scales (Weiner & Kukla, 1970). Items of the instrument were read aloud in order to minimize possible confounding effects due to reading problems.

Instrumentation

The Attribution Scales were developed to assess the causal attributions of individuals relative to four dimensions: (1) ability, (2) effort, (3) task difficulty, and (4) luck. Items consist of a pair of opposing statements representing opposite beliefs about success and failure relative to the four attributions. Each statement is rated by the subject on a Likert-type scale from 1-7 (1 = strongly disagree, 7 = strongly agree). Following procedures outlined by Weiner & Kukla (1970), mean scores were calculated for each of the four success attributions and four failure attributions. An Internal Attribution Scale score for each subject was then derived by combining the mean scores for ability and effort causal attributions. Similarly, an External Attribution Scale score was derived by combining the mean scores for task difficulty and luck attributions. Internal attributions

refer to the perception of success and failure outcomes as being a consequence of ability and effort and, therefore, under personal control. External attributions, on the other hand, are associated with the perception of outcomes as caused by task difficulty and luck and, therefore, beyond personal control.

The construct validity of the Attribution Scales has been determined by validation studies with elementary school students (Weiner, 1980), high school students (Harvey & Harris, 1975), college students (Weiner & Kukla, 1970), and adults (Nisbett & Borgida, 1975). Investigations of the reliability of the scales have been conducted using oral and written test administrations. Studies of test-retest reliability (Weiner & Kukla, 1970) provide evidence of the reliability of the scales and the assessment process. Studies of the internal consistency of the scales have yielded coefficients ranging from .72 to .87 across the four attribution categories (Frieze & Weiner, 1971; Weiner & Kukla, 1970).

Results

Preliminary Analyses

Multivariate analyses of variance (MANOVA) were conducted to investigate whether there were significant differences in causal attributions by gender of the child, mother occupation, or custody arrangement. None of the MANOVA's for the child attributions yielded significant results indicating that the child's causal attributions for success or failure did not differ as a function of gender ($F = 1.18$, $p = .43$), mother occupation ($F = 1.36$, $p = .26$), or custody arrangement ($F = 1.36$, $p = .26$).

One-way analyses of variance were used to investigate differences in academic achievement (i.e., school grades) by gender, mother occupation, or custody arrangement. None of the resulting *F*-ratios were significant. School grades did not differ as a function of gender of the child ($F = 2.33$, $p = .16$), mother occupation ($F = 2.18$, $p = .10$), or custody arrangement ($F = 1.22$, $p = .31$).

Relations Among Variables

Following preliminary analyses, Pearson product moment correlations were computed to determine the extent of the interrelationships between (1) demographic variables (i.e., family socioeconomic status, mother educational level, father educational level); (2) family interaction variables (i.e., mother-father relationship, father-child contact, mother-child contact); (3) mother causal attributions; (4) child causal attributions; and (5) academic achievement as measured by school grades. Table 1 presents the correlation matrix for all variables.

For the demographic variables, the higher the mother's or father's educational level, the higher the family socioeconomic status ($r = .28$, $p < .05$ and $r = .36$, $p < .05$, respectively). In addition, mother's educational level was related to the child's school grades ($r = .43$, $p < .01$). The mother's educational level was also related to the mother's causal attributions for her child's academic success to internal attributions of effort and ability ($r = .39$, $p < .05$). Finally, family socioeconomic status was correlated with the child's internal attributions for success ($r = .26$, $p < .05$).

Table 1

Intercorrelations Among Demographic, Family Interaction, Attribution, and Achievement Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Demographic														
1. SES														
2. Mother education	.28*													
3. Father education	.36*	.16												
Family interaction														
4. M-F contact	.09	.07	.06											
5. F-C contact	-.03	.20	.19	.33*										
6. M-C contact	-.12	.16	.20	.19	.09									
Mother attributions														
7. Success: IA	.23	.39*	.19	.16	.17	.17								
8. Success: EA	-.12	-.14	.06	.11	.09	.12	-.22							
9. Failure: IA	.17	.22	.08	.07	.06	.14	.11	.06						
10. Failure: EA	.11	.13	.10	.09	.12	.11	.07	.13	-.19					
Child attributions														
11. Success: IA	.26*	.24	.08	.24	.30*	.17	.50**	.20	.07	.09				
12. Success: EA	-.18	.09	.10	.07	-.23	.09	-.22	.21	.04	.05	-.23			
13. Failure: IA	.11	.13	.06	.03	.13	.06	-.20	.06	.19	.06	.06	.03		
14. Failure: EA	.09	.11	.04	.03	.14	.06	.11	.03	.03	.20	.04	.05	-.19	
Achievement														
15. Grades	.24	.43**	.19	.23	.39*	.20	.35*	-.19	.17	.13	.37*	-.20	.11	.09

*ρ < .05
**ρ < .01

For the family interaction variables, degree of father contact was related to the child's school grades (r = .39, ρ < .05). In addition, the greater the father-child contact, the greater the likelihood that the child would cite ability or effort as attributions for success (r = .30, ρ < .05). Father-child contact was also related to the quality of the mother-father relationship (r = .33, ρ < .05).

In terms of causal attributions, maternal attributions for the child's success to internal sources (i.e., ability and effort) were correlated with the child's school grades (r = .35, ρ < .05). Maternal success attributions of effort and ability were also related to the child's success attributions to internal sources (r = .50, ρ < .01). Finally, the child's success attributions to internal sources of effort and ability were related to school grades (r = .37, ρ < .05).

Predictors of Achievement

Following the calculation of correlation coefficients, a step-wise multiple regression analysis was conducted in order to determine the variables that predicted academic achievement. In the regression analysis, the criterion variable was school grades and the predictor variables were family socioeconomic status, mother's educational level, father-child contact, child causal attributions, and mother causal attributions.

Results of the multiple regression analysis investigating the predictors of academic achievement are presented in Table 2. Three variables contributed significantly (ρ < .05) to the prediction of school grades--child attributions for success (internal sources),

Table 2

Multiple Regression Analysis

	Independent Variables	*B*	*R*	R^2
STEP 1	Child attributions	.336	.578	.334
STEP 2	Child attributions	.346	.593	.351
	Father-child contact	.332		
STEP 3	Child attributions	.331	.628	.394
	Father-child contact	.324		
	Mother attributions	.283		

Corrected Multiple *R* .611

Corrected *R* square .373

father-child contact, and mother attributions for the child's success (internal sources). The proportion of the variance in school grades attributable to the predictors was approximately .39. Following procedures outlined by Glass and Hopkins (1984), correction for possible biased overestimation of the multiple correlation in a population of less than 50 times the number of predictors was made. After correction, approximately 37% of the variance in school grades was accounted for by the composite set of predictors.

Conclusions

The purpose of the present study was to identify familial processes and characteristics which may explain differences in academic achievement among father-absent children. Toward that end, the study investigated the interrelationships between demographic and family interaction variables and causal attributions and the manner in which these dimensions influence father-absent children's school grades.

The study findings indicate that father-child contact, mother attributions for the child's success, and the child's attributions for success account for a significant portion of the variance in the academic achievement of father-absent children. Greater father-child contact was significantly related to higher school grades. In addition, the more father-child contact, the greater the likelihood the child would cite internal sources (i.e., ability and effort) as attributions for success. It appears from these results, therefore, that paternal contact after separation has an effect on the child's sense of personal control and academic achievement. These findings are consistent with

previous studies suggesting the importance of continued contact between fathers and their children to the reduction of academic risk for these children (Blanchard & Biller, 1971; Hetherington, Cox, & Cox, 1978; Kurdek, 1987; Wallerstein & Kelly, 1980).

Mother attributions for the child's success were also related to the child's personal attributions and academic achievement. Children whose mothers expressed ability and effort as attributions also tended to cite internal sources as attributions for their success. Furthermore, children whose mothers cited internal sources as attributions for the child's success tended to have higher school grades. Previous literature suggests that parental beliefs regarding academic achievement can have a strong influence on children's academic motivation and behaviors (Frederick & Wellborn, 1988; Parsons, Kaczala, & Adler, 1982). These parental influences on children's school achievement are usually explained within a learning theory framework which postulates children's identification with parents as models of attitudes and behaviors leading to academic success. There is also some evidence that parental attributions for the child's success to internal causes may be linked to parenting practices that facilitate the child's academic achievement (Eccles, Goldsmith, Jacobs, & Flanagan, 1988).

Findings of the present study also indicated a relationship between the child's causal attributions and school achievement. Consistent with previous studies (Kifer, 1975; Weiner, 1983; Weiner & Kukla, 1970), attributions of success to internal sources were significantly related to higher school grades. Compared with children

with low school grades, those with high grades were more likely to perceive successful achievement outcomes as being attributable to internal sources such as ability and effort. Furthermore, children with low school grades were more likely than children with high grades to ascribe success to external factors such as task difficulty and luck. Academic achievement did not differ, however, as a function of causal attributions for failure outcomes. Thus, compared with academically unsuccessful children, academically successful children portrayed similar levels of personal responsibility for their school failures, but perceived themselves as having significantly more control over their academic successes. These findings suggest that achievement differences among father-absent children may be at least partially explained by the link between attributions and school achievement.

The child's attributions for success added significantly to the variance in school grades beyond the demographic and family interaction variables often cited in the father-absence literature. Therefore, the results of the present study suggest that it is important to consider the implications of causal attribution data for the school achievement of father-absent children. The relationships between attributions and school achievement may partially explain differences in academic achievement found in previous investigations comparing cognitive outcomes for father-absent and father-present subjects. The affective characteristics of father-absent children, especially in relation to academic achievement, would appear to be fruitful directions for future research.

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